

The Connector API

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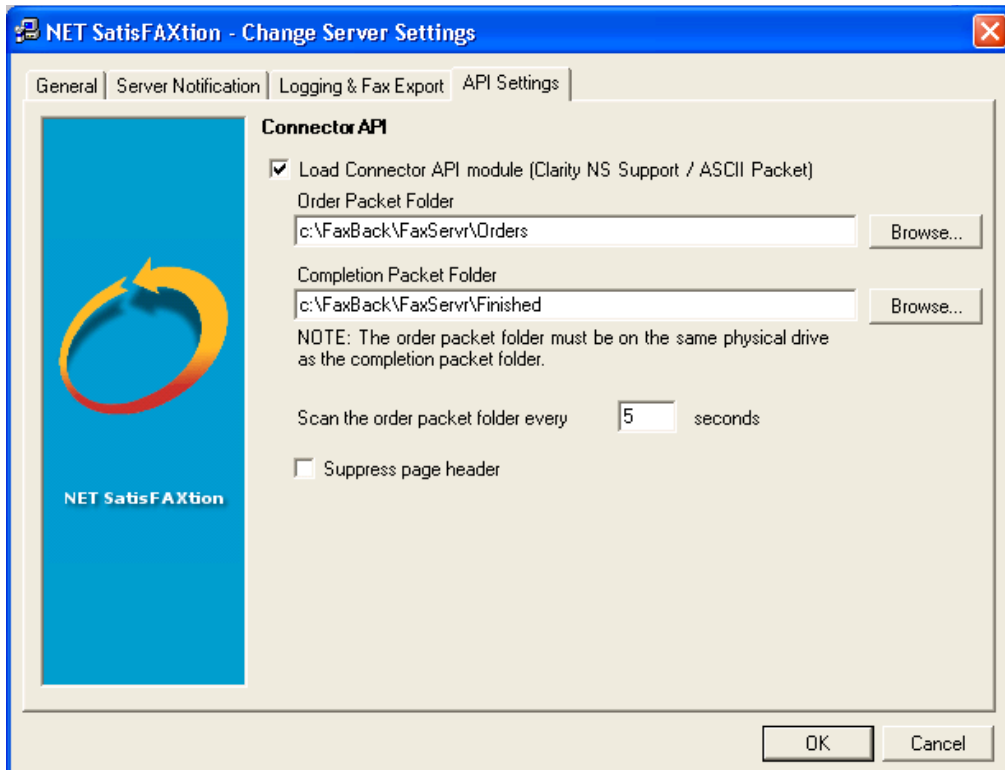
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Overview

The Connector Application Programming Interface (API) provides a simple tool for sending faxes via an ASCII file or “packet”.

If your NET SatisFAXtion fax server is licensed for this API, the following tab in “Change Server Settings” will be available for configuration:



Configuring the Connector API

The NET SatisFAXtion Fax Server processes the packet and delivers the fax. The NET SatisFAXtion Fax Server receives instructions for sending faxes in the form of ASCII order files (or “packets”). These packets provide the Fax Server with names of documents to be transmitted, the fax number where the documents are to be sent, and other information needed to successfully send a fax. If you develop applications that will be interfacing with NET SatisFAXtion, adhering to this format ensures that your application will be able to send fax orders from any networked (non-FaxBack) application.

How the Connector API works

The Connector continually scans the order directories, looking for new order packets. When an order packet is found with a correct extension, it is processed and the corresponding fax job is sent.

A standard order packet is an ASCII file whose extension begins with “T”.

For example: NEWFAX.T02

In this example “NEWFAX” is the order name. “T” designates the ASCII file as a standard two-call order packet. 02 specifies a node number of the system creating the order packets.

Order Packet Contents

Each order packet submitted to NET SatisFAXtion must contain certain information for the fax that is to be sent. Each order packet is built from the following categories and

corresponding sections.

Category	Order Packet Section
Tracking Parameters	[OrderPacket]
Address Parameters	[OrderPacket]
Document Parameters	[OrderPacket]
Single Call Parameters	[SingleCall] Single-call is used to connect to a fax machine using the existing phone connection. For fax-on-demand systems, the voice and fax ports must be wired together in single-call mode.
Logging Parameters	[Logging]

The following tables list all the valid parameters that can be added to an order packet.

Tracking Parameters

[OrderPacket]

Parameter	Required	Options/Description
Description	No	The NET SatisFAXtion FaxServer does not use this parameter. It can also be used for tracking purposes.
CallID	Yes	Unique job tracking number written to each log file that for every fax event that FaxServer processes. This ID is written to the NET SatisFAXtion fax server log for unified reports
UserName	No	Optional, for tracking

Address Parameters

[OrderPacket]

Parameter	Required	Options/Description
To	No	Name for the 'To' field to put on the fax header and cover sheet routing section.
Subject	No	Name for the 'To' field of documents delivered via the NET SatisFAXtion email gateway
Company	No	Name for the 'Company' field to put on the cover sheet routing section
From	No	Name for the 'From' field to put on the fax header and the cover sheet routing section.
FaxNumber	Yes	Any valid dial string containing the fax number for delivery.
Address		May be used as a substitute for FaxNumber. If one is used, the other should not be present. There is no functional difference between the two. Also used for email gateway deliveries. For example, if the SMTP email gateway is configured, you can send an email with: Address=SMTPPost!info@faxback.com
Address n	No	Multiple parameters Address1, Address2, - Address n may be specified to supply multiple addresses for a single packet. This is similar to the numbering method used for File1, File2, etc. If Address1, etc. are used in the packet, parameters Address and FaxNumber should not be present. Numbers used must start at 1 and increase by 1. This method of addressing a packet is convenient for broadcasts, but has the disadvantage of rendering the information in the [Logging] section of the finished packed all but useless, since that logging information applies to only one address out of all those submitted. If logging information is desired for each individual address, individual packets must be submitted for each address. Example: [OrderPacket] From=FaxBack, Inc. Address1=5035975399 Address2=8003296453 TO_NAME=FaxBack File1=c:\fax.tif

Scheduling fax delivery

[OrderPacket]

Parameter	Required	Options/Description
ScheduledTime	No	11/2/1999 18:17:00 Date and time in the format listed above. The order packet will be processed by the Connector and the fax job submitted to the NET SatisFAXtion server for delivery at the date and time specified.

When a packet with a "ScheduledTime=" parameter is submitted, the Connector changes the file name suffix from "Txx" to "@xx". The packet remains in the order directory with this name during the interval between the current time and the scheduled time. When the scheduled time is reached and the fax is delivered, the packet is either deleted or it is moved to the completion director with the [Logging] section added, depending on the Connector configuration.

Example packet with this parameter:

```
[OrderPacket]
From=CREE at FaxBack, Inc.
FaxNumber=503-597-5399
TO_NAME=Joe Smith
File1=p:\personal\mikel\b.tif
ScheduledTime=11/2/1999 18:17:00
```

Document Parameters

[OrderPacket]

Parameter	Required	Options/Description
CoverLogo	No	This specifies the full path to a graphic file to use as the cover sheets logo. Typically this is a rich text format file (RTF) that will be processed by NET SatisFAXtion along with the cover sheet keywords. See the NET SatisFAXtion Appendix on building cover pages.
CoverText	No	{text (ASCII) file} In order to use an RTF format CoverLogo, a CoverText file must be specified. Its contents will be ignored unless the RTF file contains a \$(Cover) parameter. Contents of this file can be used as a "watermark" on the CoverLogo RTF file by simply formatting the RTF file so that the \$(Cover) is positioned and configured with the correct font for a watermark.
File{x}	Yes if no coverlogo and coverttext	This specifies the full path to a file to be faxed. Can be any format supported by your NET SatisFAXtion server. TIF and PDF formats are typically used. This can also be a URL. For example: File1=http:\\www.faxback.com The system supports up to 30 File parameters per packet. File1, File2...File30

Single Call Parameters (for use with an existing connection)

[SingleCall]

Parameter	Required	Options/Description
Action	Yes	Send Autoupdate
VoicePort	Yes	1-24
File	Yes	{autoupdate document file}
AppendPageCountToFilename	No	1="yes", 0="no" See Registry setting of the same name for more information.

Logging Parameters

[Logging]

Parameter	Required	Options/Description
PortUsed		Fax port name that processed this job
FaxStatusNum		Status number
FaxStatus		{message} Status returned from fax card driver.
ScheduledTime		Date and time job was scheduled
SubmitTime		Date and time job was submitted to fax server
StartTime		Date and time job was started
ReceiverCSID		CSID of target fax machine
ConnectionTime		Duration of the fax in seconds
Number of errors		Number of fax errors
Retries		Number of fax retries
SenderCSID		CSID of sending fax port

Order Packet Examples

The following example shows the format to use when generating order packets intended to interface with the Connector for NET SatisFAXtion API. The information shown next to each parameter is provided as an example only, and can be replaced by your own information.

A “T” packet

```
[OrderPacket]
CallID=904191803100101
CoverLogo=C:\COVER\CoverPage.RTF
CoverText= C:\COVER\Cover.TXT
To=Alana Shuster
Company=UDS Defense Systems
From=Henry Jones
FaxNumber=5035551234
File1=C:\DOCUMENT\MENU.TXT
File2=D:\WORD\EMPLOYEE.TIF
File3=http://www.faxback.com/example/datasheet.pdf
```

Here is the “T” packet after being changed to a “P” packet and moved to the completion directory:

```
[OrderPacket]
CallID=904191803100101
CoverLogo=C:\COVER\CoverPage.RTF
CoverText= C:\COVER\Cover.TXT
To=Alana Shuster
Company=UDS Defense Systems
From=Henry Jones
FaxNumber=5035551234
File1=C:\DOCUMENT\MENU.TXT
File2=D:\WORD\EMPLOYEE.TIF
File3=http://www.faxback.com/example/datasheet.pdf
[Logging]
FaxStatusNum=0
FaxStatus=Ok
PortUsed=Fax13
ScheduledTime=05/21/1999 15:29:08
SubmitTime=05/21/1999 15:29:08
StartTime=05/21/1999 15:29:08
ReceiverCSID=503 597 5399
ConnectionTime=135
NumberOfErrors=0
Retries=0
SenderCSID=
```

This example shows an outbound single-call packet: an “S” packet

```
[OrderPacket]
CallID=904191833100101
CoverLogo=C:\COVER\CoverPage.RTF
CoverText= C:\COVER\Cover.TXT
To=FaxBack Caller
From=Acme FaxBack
FaxNumber=
File1=C:\DOCUMENT\MENU.TXT
File2=D:\WORD\EMPLOYEE.TIF
File3=http://www.faxback.com/example/datasheet.pdf

[SingleCall]
VoicePort=1
Action=Send
```

Here is the “S” packet after being changed to a “P” packet and moved to the completion directory:

```
[OrderPacket]
CallID=904191833100101
CoverLogo=C:\COVER\CoverPage.RTF
CoverText= C:\COVER\Cover.TXT
To=FaxBack Caller
From=Acme FaxBack
FaxNumber=
File1=C:\DOCUMENT\MENU.TXT
File2=D:\WORD\EMPLOYEE.TIF
File3=http://www.faxback.com/example/datasheet.pdf

[SingleCall]
VoicePort=1
Action=Send

[Logging]
FaxStatusNum=0
FaxStatus=Ok
PortUsed=Fax1
ScheduledTime=05/21/1999 15:27:16
SubmitTime=05/21/1999 15:27:16
StartTime=05/21/1999 15:27:16
ReceiverCSID=503 597 5399
ConnectionTime=70
NumberOfErrors=0
Retries=0
SenderCSID=
```

This example shows an inbound autoupdate, single-call packet: an “S” packet

```
[OrderPacket]
CallID=904191833100101
To=
From=
FaxNumber=

[SingleCall]
VoicePort=3
Action=AUTOUPDATE
File=C:\FAXBACK\DOCUMENT\5466
```

Order Packet Naming Schemes

Keep the node number consistent for each system or process submitting order packets to the Fax Server. For example, if your program or system initiates faxes by submitting order packets to the Fax Server, and your program or system is designated as node 00, all the order packets should have an extension of T00. Since many systems can submit order packets to the Fax Server, use a standard and unique file-naming convention. Otherwise, orders from other applications might be overwritten.

The name of the order packet file can be any valid Windows filename. Make sure that all systems or processes writing orders to the order directories use different node numbers. Otherwise, the node numbers may conflict, causing undesired results. Applications that will generate large numbers of order packets in a short period of time or in a continuous loop must use an incremental naming scheme such as 00000001.Tnn, 00000002.Tnn, 00000003.Tnn, and so on.

ccccccc.Xuu
 where: ccccccc = any valid Windows file name
 X = a valid order packet extension
 uu = System or user node number

The following table shows all the valid order packet extensions and what they mean. Only files with these extensions should be seen in the order directory.

S	New	FOD Single-call	This is a single call order packet.
T	New	FOD Two-call	This is a normal packet that is created by a two-call FaxBack Call Path or by another application. Any external applications that are submitting packets to FaxServer should also use this extension.
@	Active	FOD	This is an active Fax packet. The fax is currently being sent or waiting for a fax retry.
P	Completed	FOD	This is a completed Fax packet. This packet will only exist if the FaxServer is configured with a completion directory to save packets. It will be located in the completion directory, not the order directory.

Sending Faxes via NET SatisFAXtion

To send a fax via NET SatisFAXtion, in the primary or single-call order directory, create an order packet with a temporary extension using your processes. Name the order packet using an extension that begins with '\$' (for example, xxxxxxxx.\$nn). Close the file and rename it to an extension that starts with 'T' (for example, rename it from xxxxxxxx.\$nn to xxxxxxxx.Tnn). Renaming the order packet to the correct extension prevents "sharing violation" errors. As soon as you rename the order packet to xxxxxxxx.Tnn, NET SatisFAXtion recognizes the file as an order packet, and if all of the Fax Server's fax ports are not busy, sends the fax using the parameters in the order packet

Receiving Faxes via NET SatisFAXtion

The Connector API supports receiving files on an existing connection. This is referred to in this document as “single-call” and “autoupdate”. This feature only works with analog fax hardware such as a MainPine fax card. It will not work with IP fax gateways such as the AudioCodes MP-114.

Order Packet Search Order

FaxServer searches for packets with extensions that are picked up as follows:

Primary Order Packet Path	T
Single Call Order Packet Path	S

The Difference Between S Packets and T Packets

- S packets are scanned for first hence they are higher priority than T packets.
- S packets go immediately and do not wait for fax ports not to be busy. T packets are picked up only when a port becomes available
- S packets can be generated in a separate directory than T packets depending on the Connector registry settings.
- S packets can be scanned for at different rate than T packets which is also set in the registry.

Deleting Submitted Orders

To delete any submitted fax jobs that have been submitted to the order directory simply delete or rename (suspend) the order packet file. The order packet type that can be deleted or suspended is “T”. These are all new jobs that haven’t been picked up and processed by NET SatisFAXtion yet. Once a job has been picked up and processed the active order packet can not (or should not) be deleted. Deleting active packets that have an extension of ‘@’ can cause errors on NET SatisFAXtion. Once an order packet is named "P" it can be deleted or moved.

Non-Unique file names

If you submit packets with non-unique file names, the “P” packets in the completion directory may be overwritten. If you wish to use “P” packets for logging, you must use unique file names.

Registry Settings for the Connector

This section described the NET SatisFAXtion registry settings to support the Connector.

RegisteredName

Select the NET SatisFAXtion user for the Connector {default=ClarityNS}. If this user has a password, enter it here. Otherwise, leave this field blank: Note: For AutoUpdate to work, this user must have supervisor rights.

Registry fields effected:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\ASCIIPacketServer]
"RegisteredName"="ClarityNS"
```

"RegisteredPassword"=""

PacketPath and ScanRate

Path for standard Connector packets {default = c:\faxback\faxservr\orders} Scan-rate for standard Connector packets {default = 5 seconds} [range 1 to 99999 seconds] This is the path where ASCII packets with suffix "Txx" are processed.

Registry fields effected:
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\ASCIIPacketServer]
"PacketPath"="C:\Faxback\Faxservr\Orders"
"ScanRate"=dword:00002710

SingleCallPacketPath and SingleCallScanRate

Path for single-call Connector packets. Scan-rate for single-call Connector packets [range 1 to 30 seconds] This is the path where ASCII packets with the suffix "Sxx" are processed.

Registry fields effected:
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\ASCIIPacketServer]
"SingleCallPacketPath"="C:\Faxback\Faxservr\Orders\Single"
"SingleCallScanRate"=dword:000007d0

SingleCall Port Designation

Designate physical ports on the fax modem card for single-call.

Registry fields effected:
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\ASCIIPacketServer\SingleCall]
"1"="IQ Express #1"
"2"="IQ Express #2"
"3"="IQ Express #3"
"4"="IQ Express #4"

CompletionDir

Path for Connector packet log files where finished packets will get moved to with the *.p?? extension. If this setting is not present or is blank packets will be deleted. If this setting is a directory that does not exist, packet will build up in the order queue with the extension *.@??

Registry fields effected:
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\ASCIIPacketServer]
"CompletionDir"="C:\Faxback\Faxservr\Orders\Finished"

Suppress_Header

Parameter to suppress outbound fax headers? When set to 0 will place a header on all outgoing faxes (default). When set to 1, the header will be suppressed.

Registry fields effected:
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\ASCIIPacketServer]
"suppress_header"=dword:00000000

Strip_Header_Line_Count

Parameter to remove fax headers from all incoming faxes. 40 scan lines typically will remove the header from an incoming fax. If this parameter is not present, all headers will remain in place.

Registry fields effected:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\IcanFax]
"strip_header_line_count"="40"
```

InboundDir and ExtensionToUse

Store a copy of every incoming fax for this user in the specified directory. This is for archiving images of received faxes. This setting effects only incoming faxes sent to the Connector user.

Registry fields effected:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\ASCIIPacketServer]
"InboundDir"="C:\\Program Files\\NET SatisFAXtion\\Logs"
"ExtensionToUse"=".tif"
```

AllowMissingFiles

This parameter allows you to configure your system to deliver a fax if ANY of the files requested exist. By default, ALL the requested documents must exist in order for a packet to be processed and a fax submitted.

If so configured (by the new AllowMissingFiles registry setting being set to 1), the Connector will still send a message even if some of the files listed in the packet are missing. If AllowMissingFiles is 0 or not present, the usual behavior prevails.

If AllowMissingFiles is 1 and ALL the files listed in the packet are missing, ASC2CAS will put the following error in the finished packet:

```
[Logging]
FaxStatusNum = 2
FaxStatus=Nothing to send
```

Registry fields effected:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\ASCIIPacketServer]
"AllowMissingFiles"="1"
```

AppendPageCountToFilename

When an inbound fax arrives, the file name is specified by the ascii packet parameter "File="

When this registry setting is activated, the system appends the page count of the file to the file name.

For example, if the packet contained this parameter:

```
File=c:\faxback\document\45678
```

and the inbound fax was seven pages long, the file name of the saved file would be

c:\faxback\document\45678-07.tif

Registry fields effected:

[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\ASCIIPacketServer]

"AppendPageCountToFilename"=dword:00000001

NOTE: This same feature can be activated without any registry change. See the SingleCall Parameters of the Order Packet above for the keyword "AppendPageCountToFilename="

Saving Files in Acrobat (PDF) Format

By default, single-call "AutoUpdate" image files saved by the Connector are saved in .TIF format. To have the files stored in Adobe Acrobat PDF format add these registry settings:

Registry fields effected:

[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\ASCIIPacketServer]

"ExtensionToUse"=".PDF"

"File_type"=dword:0000000f

"Image_type"=dword:00000005

[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\ASCIIPacketServer\SingleCall]

Sending an email alert when there are certain types of errors

When a fax fails, the order packet is placed in the "CompletionDIR" folder along with a [Logging] section. In the logging section is the keyword "FaxStatus=". There are situations where a more pro-active approach is needed with errors. Instead of simply logging the errors, the system can immediately send out an email when an error occurs. For this feature to work, the NET SatisFAXtion fax server must have the SMTP email gateway installed and tested.

For each error number you wish to send an alert for, you need to create a registry key. For example, below is a registry that tracks error "1076" and "1113". For each error number you wish to track, you must create an email template for the email that is to be delivered. Example email templates and registry can be found in the FaxBack Knowledge base. Search the Knowledge base for "FaxStatus email alert".

Registry fields effected:

[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\ASCIIPacketServer\FaxStatus\1076]

"email_template"="c:\faxback\faxservr\erroremail\1076.html"

"email_address"="SMTPPost:info@faxback.com"

[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\ASCIIPacketServer\FaxStatus\1113]

"email_template"="c:\faxback\faxservr\erroremail\1113.html"

"email_address"="SMTPPost:info@faxback.com"

Single Call Configuration for NET SatisFAXtion

NOTE: No applicable to IP installations. Works only with analog fax hardware such as MainPine fax modem cards.

Steps for configuring NET SatisFAXtion for single-call mode include modifying the NET SatisFAXtion registry and forwarding inbound faxes from POSTMASTER to ClarityNS.

Modify the NET SatisFAXtion registry for single call

When the NET SatisFAXtion install detects hardware from the modem manufacturer, the order and number of the modems does not always match the physical layout of the phone jacks on the modem card. You can plug test phone lines into each modem line and send a fax to verify which physical line goes to which modem, and then adjust the registry settings accordingly to get the order 1, 2, 3, 4,... correct.

Below is an example showing the relevant registry changes:

Inbound Single-call AutoUpdate files stored in PDF format. Remove these three entries if you want the files in multi-page TIF format.

```
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\ASCIIPacketServer]
"File_type"=dword:0000000f
"Image_type"=dword:00000005
"ExtensionToUse"=".PDF"
```

Setting the physical port number for each single-call port.

```
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\ASCIIPacketServer\SingleCall]
"1"="IQ Express #1"
"2"="IQ Express #2"
"3"="IQ Express #3"
"4"="IQ Express #4"
```

Do a search-and-replace on the Class1 section of the existing registry for the modem name. In the example below, the modem names are "IQ Express #1", "IQ Express #2" ...

```
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\Class1\IQ Express #1]
"tapi_modem_name_saved"="IQ Express #1"

[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\Class1\IQ Express #2]
"tapi_modem_name_saved"="IQ Express #2"

[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\Class1\IQ Express #3]
"tapi_modem_name_saved"="IQ Express #3"

[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\Class1\IQ Express #4]
"tapi_modem_name_saved"="IQ Express #4"
```

Do a search-and-replace on the IcanFax section of the existing registry for the modem name. Also set the mode entry to "fax_out"

```
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\IcanFax\IQ Express #1]
```

```
"fax_device_name"="IQ Express #1"  
"mode"="fax_out"
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\IcanFax\IQ Express #2]  
"fax_device_name"="IQ Express #2"  
"mode"="fax_out"
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\IcanFax\IQ Express #3]  
"fax_device_name"="IQ Express #3"  
"mode"="fax_out"
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\FaxBack\IcanFax\IQ Express #4]  
"fax_device_name"="IQ Express #4"  
"mode"="fax_out"
```

Autoforward PostMaster to ClarityNS

Open NET SatisFAXtion Administrator, select User Administrations. Set AutoForwarding on the user "PostMaster"

